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THE IMMIGRATION OF LEPIDOPTERA TO THE  
BRITISH ISLES IN 1980: A SUPPLEMENTARY NOTE

By R. F. BRETHERTON<sup>1</sup> and J. M. CHALMERS-HUNT<sup>2</sup>

The following corrections and additions should be made to part I of the main report (in *Ent. Rec.* 93: 47-54):

*Corrections to Annexe II*

- D. RAMBURIALIS: S. HANTS: this record should be dated 19.8 and intalled (RLH).  
R. SACRARIA: SUSSEX. Worthing should be dated 29.9.  
O. OBSTIPATA: for BERKS, substitute OXON (v.c.23)  
A. CONVOLVULI: for WEXFORD, substitute W. CORK.  
U. PULCHELLA: W. SUSSEX: delete (ASE) substitute (RTR)  
N. AERUGULA: for (1), substitute (2)  
H. PELTIGERA: for BERKS, substitute OXON (v.c.23)

*Additions to Annexe I – Recorders and localities*

It should be noted that in some cases insects have been reported by two or more recorders. In Annexe II the initials given are those of the recorder from whom the record was received first; but as far as possible the names of all have been included in Annexe I. It has not been generally possible to name the authors of all the records which have been received through intermediaries.

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|--|---|
| Bellorby, Mr and Mrs C., Westmorland   | Howell, Mrs S. J., Hagley Wood, Sussex  |
| Blokland, T. J., co. Cork, Ireland   | Jago, E. M. R., E. Kent   |
| *Burton, J. F., Bristol  | *Kydd, D. W., Cumbria   |
| Clouter, F., Isle of Sheppey, E. Kent  | *McRitchie, B., Harlow, Essex   |
| *Dey, D., Sussex and Kent  | *Page, B. W., Warwicks. ( <i>Bull. am. ent. Soc.</i> , 40:84)                   |
| *Dunn, T. C., co. Durham, in <i>Vasculum</i> 65: 61  | *Payne, K., Merseyside ( <i>Ent. Gaz.</i> 32:64)                                |
| *Ellis, E.A., mainly Norfolk   | *Pons, M. A. S., S. Lancs.  |
| *Gent, C. J., Newcastle-upon-Tyne ( <i>Bull. am. ent. Soc.</i> 40:84)                              | Price, L., Stroud, Glos.  |
| *Harewood, N. W., Cleveland, N.E. Yorks v.c.62 ( <i>Bull. am. ent. Soc.</i> 40: 126 & pers. comm.) | *Read, R.W. J., W. Cumbria  |
| *Haynes, R. F. & Hillis, Dr. J. P., Ireland ( <i>Irish. Nat. J.</i> 20: 296-298)                   | *Scott, R. E., wardens' records from 42 R.S.P.B. reserves in the United Kingdom |
|  | Walley, P. F., Beachy Head, Sussex  |
|  | *Welch, R. C., Isles of Mull, Coll, Skye  |

<sup>1</sup> Folly Hill, Birtley Green, Bramley, Guildford, Surrey GU5 0LE

<sup>2</sup> 1 Hardcourts Close, West Wickham, Kent BR4 9LG

- \*Hobbs, R. N., Sussex; E. Kent      \*White, M. C., mainly Worksop  
Hall, N. M., Portland, Dorset;      district, Notts.  
    Silly  
Howell, A. D., St Margarets Bay,  
    E. Kent

*Additions to Annexe II – Scarce Immigrant Species*

- DANAUS PLEXIPPUS L. WESTMORLAND (v.c.69). Grange-over-Sands, 12.10, One seen flying in a garden (CB per DWK).  
N. POLYCHLOROS. E. KENT. St Margaret's Bay, 28.8., male (ADH).  
R. SACRARIA. E. KENT. Dungeness, 7.8. (DCB).  
O. OBSTIPATA. MID CORK. Ballymaloe, 8.8; Ballyhooley, 24.8. W. CORK. Castletown, 24.8. (RFH & JFH). DORSET. Portland, 28.9 (NMH). ORKNEY. Orphir, 27.8 (RIL).  
A. CONVULVULI. LOUTH. Dundalk, 6.10 (RFH & JPH). MONMOUTH. Usk, 3.10 (GANH).  
M. UNIPUNCTA. SCILLY IS. 17-24.9, with *P. saucia*, becoming common at sugar and ivy towards the end of the week (NMH).  
H. ARMIGERA. E. KENT. Minster-in-Sheppey, 16.8, one at light (FC).  
H. PELTIGERA. DORSET. Portland Bill, 6/7.6, two (NMH). N. GLOS. Kingscourt, Stroud, 13/14.6, one (LP).

Of these additions the record of *D. plexippus* in Westmorland is the only one of the year, and probably the first for that vice-county; and the specimen of *N. polychloros* caught in Kent appears to be the first reported there since 1977.

Among the commoner species, most of the supplementary British records of *V. atalanta* reflect either its initial association on arrival with *C. cardui* or its unusually poor performance thereafter, though in Cumbria it had achieved rough equality in numbers with that species by September (DWK). There is also an interesting note of twelve seen flying south or south west at Hastings. E. Sussex, on September 20 (RNH). In Ireland, however, *V. atalanta* clearly enjoyed a very good year, with a total of 1,422 reported. Although arrivals in June were, as in Britain, fewer than those of *C. cardui*, it seems to have bred more successfully, being described as very abundant in August and September. It was also noted in very large numbers at Cape Clear Island, W. Cork on several dates in October (RFH & JPH). These may have represented south westerly movement of Irish bred butterflies, or further immigration which was not paralleled in Britain.

For *C. crocea* we have one additional record in June, at Hagley Wood, Sussex (SJH) and over a dozen for the late August and early September immigrants, ranging from Dorset and Anglesey to Cumbria, which raise the British total to about 80. In Ireland, where the June immigration was much stronger and extended as far north as Ulster, where there was probably some local breeding, the late August invasion was mainly to the south east and agreed

in date with the arrivals in Cornwall and movement up the west coast of Britain. In Ireland the recorded total, also about 80, was the highest since 1975. For *M. stellatarum* there are two additional records, from Bristol, June 15 (JFB) and Kendal (DWK) to add to what was in England a fairly good year; but the Irish total of six, between late May and early September 30, was not distinguished.

Several supplementary records of *U. ferrugalis* emphasised its abundance and ubiquity here, as in Ireland; but *P. xylostella* seems to have been much less common there.

*Corrections to Annexe III – Cynthia cardui*

LANCASHIRE, N. Leighton Moss 31.8: for corrected dates and numbers, see below.

*Additions to Annexe III*

BEDFORDSHIRE. Sandy, 7/13.6, one present; 3.8/4.9, seen on 13 days, maximum 5 on 10.8; 8.10 (1); Sutton Fen, 5/8/4.9, seen on 5 days, one or two. (RES).

BERKSHIRE (v.c.22), Kennington, 7.9, one (JFB).

CAMBRIDGESHIRE (v.c. 29), Great Evenden, 7.6, one (EAE); Fowlmere, early 8, numerous; Ouse Washes, in first three weeks 8 (RES).

CESHIRE. Gayton Sands, 8/13.6, July one, 14.8/4.9; Wirral, 13.8, many worn (MASP).

CUMBERLAND. St. Bees Head, large numbers arrived in June (RES); Corkickle and elsewhere 7.6 (4); Kirkland, 2.7, one on flowers of *Hypocheris radicata*; near Egremont, 9 and 10.8 (2); Nethertown and elsewhere 16/31.8 (14); Walbarrow Crag, 19.10, one (RWJR); Kendal, 1.6 (1), Solway Marshes 4.6., c.40/50 (DWK).

DERBYSHIRE. Buxton, 26.6, one (EAE).

DEVON S. Aylesbeare Common, 4.6/5.7 (3), 11/31.8, with maximum of 8. (RES).

DORSET. St. Albans Head, 16.7 (2); Studland, 17.7 (1) (MCW).

DURHAM. Butterknowle, 28.6, one; Sunderland, 31.7, c.20 along a garden hedge, 1.8, dozens on cliffs; Quebec, 12.7, one; Chesterle-Street, 29.7.(2), 31.7 (1), 1/3.8 (20/40); 14.8, many; 8.9 (1); Waldridge Fell, 17.8 (1).

ESSEX S. Harlow, first seen 29.6, in late July and August many reports of singles and occasionally of two or three (BMcR).

GLOUCESTERSHIRE S. Nagshead, 12.6., 13.6, 18.6, 12.8, all singles (RES).

HAMPSHIRE S. Langstone Harbour, 13.6 (1), 23.8(2) (RES).

KENT E. Clowes Wood and elsewhere 10/23.8 (8); Rainham, 3/7.9 (3), Folkestone, 7.9 (1) (D.D.); Folkestone, 5/16.8 (7), 20/25.8 (22), 24.8, common, 25.8 (12), 1/8.9, still common, especially on knapweed; 3.10, one (EMW).

ISLE OF WIGHT. St. Catherine's Point, 4.6., one off the sea

LANCASHIRE N. Leighton Moss, June, small influx (peak 3), very large influx from late July, with peaks 14.8 (58), 16.8 (138), then falling quickly in poor weather (RES).

- LANCASHIRE S. Ainsdale N. N. R., June, second week, large influx; in July larvae on isolated plants of *Cirsium vulgare*, but *not* on the dense patches of *C. arvense*; fresh adults appeared August, first week, and remained until mid-September; no larvae then seen, but a number of fresh adults in October, second week. (KP).
- LINCOLNSHIRE N. Tetley Marsh, large numbers (RES).
- NORFOLK W. Wells-on-Sea, 7.6.(1); Swaffham, 8.6 (1); Tottingstone, 7.6 (1) (EAE).
- NORFOLK E. Beeston, near Sheringham and five other places, 10/16.6, all singly; Hoveton, 12.7, one; Hickling, 2.8, several (EAE).
- NORTHUMBERLAND N. Black Law, c.1,000ft, near Wooler, 29.7, sudden appearance, groups of 3 to 5 flying south all day and through 30.7, 31.7, 1.8, after which thunderstorms checked observation, and later the butterflies had dispersed; Kyloe, 1.8, dozens seen (TCD).
- NORTHUMBERLAND S. Coquet Is., 24.6 (1); 29.7, large influx (more than 30), decreasing until a few still present in mid 8. (RES); West Gosforth, 1.8 (1), 2.8 (10 on buddleia) (CJG/TCD).
- NOTTINGHAMSHIRE. Worksop district, 6.6 (2), 8.6 (2); 30.7 (1), 1.8 (1), 10/16.8 (43), 19.9 (2) (MCW).
- SOMERSET N. Failand, near Bristol, 11.6, one at hedgerow flowers (JFB).
- SUFFOLK E. Halvergate Island, 2.6 (1), 28.6 (1), July (2), August first week, very abundant; Minsmere, 12.7/18 (5) (RES), 16.8 (2 fresh) (JFB); Wolves Wood, 1.8 (1), 2.8 (1); Felixstowe, 8.6 (1) (EAE).
- SUFFOLK W. Lakenheath, 8.6 (12) (EAE).
- SUSSEX E. Fore Wood, mid-June, on two days, mid August, one (RES); Hastings, 20.9 (1) (RNH).
- SUSSEX W. Rogate, numerous mid September, especially 14.9 (JACG).
- WARWICKSHIRE. Charlecote, 28.9, 4 larvae in separate tents on nettle – emerged 23/24.10 (BWP).
- YORKSHIRE N. E. (v.c. 62). Cleveland. Saltburn and Redcar dunes, 3.6, later widespread inland and through industrial Teeside; mid 7, a few worn. later in large numbers (? emerging) to mid 8, then vanished, late 9, a few on *Sedum*. Larvae from newly hatched to fully fed from early 7 to 2.8, with 200 on dunes in three days; all those collected pupated by 10.8. Early 9 / early 10, c.600/700 larvae found and most collected, some producing adults while others were still feeding, and butterflies still emerging in captivity 11.11. No Larvae were parasitized (NWH).
- YORKSHIRE S. E. (v.c. 61), Bampton Cliffs, 7.6 first, odd singles in July, maximum 16.8 (10); Hornsea Mere, 24.6/21.9, maximum 30.7: largest immigration for many years; Blacktoft Sands, first late 7, 1/21.8 c.10 daily (RES).
- YORKSHIRE MID. (v.c. 64). Bishopthorpe, 25.9 (MCW); Fairburn, 3.7. (1), 31.7/3.9 in good numbers (RES).

## Ireland

ANTRIM. Rathlin Island, 5.6 (58), 15.6 (70), regularly later; Shanes Castle, 8.6 (1); 24.9 (2) (RES).

CORK. Lemara, 7.8 (1), 10.8 (1) (TJB).

For other Irish records, total 1,751, see RFH and JPH, *Irish Nat Jnl.*, 20: 296-298

## Scotland

ABERDEENSHIRE N. Loch of Strathbeg, 5.6/8.9, maximum 31.7 (6). (RES).

ANGUS. Loch of Kinnordy. 11.6, 23.6, 7.7, singles; 31.7/2.8, up to 4 present; recorded in 8 at 3,200ft. (RES).

INNER HEBRIDES (v.c. 104), Skye, Glen Brittle, 14.6, Dunvegan Castle, on *Armeria*, Claigan Beach (2), Loch Bharcasaig, 17.6 (REW).

INVERNESS SHIRE E. Loch Garten, 12.6 (1), up to 2 on four days 8; Insh Marshes, 9/22.6, singles, 12/22.8, singles, 17.8 (3) (RES).

MULL and COLL (v.c. 103). Salen, Mull, 9.6 (1) (RCW).

PERTHSIRE W. Killiekrankie, influx from 6.6 on. (RES).

RENFREWSHIRE. Loch Winnoch, from 8.6, with up to 8 regularly in late 6, 7, 8 (RES).

SHETLAND. Loch of Spiggie, 22.6, 6.7, 31.7, 1.8, all singles; 2.8. (6), regularly until 16.8 (RES).

## Wales

ANGLESEY. South Stack, 3.6/4.7, and again 7.8/11.10 (RES).

BRECONSHIRE. Gorse Bank, 26.6, with maximum 20.9 (6); other localities 26.6 onwards, at least 77 specimens, last Maescelyn, Brecon, 26.10 (PS-B).

DENBIGHSHIRE. Llanduno and Llandrillo, 3.8 (3) (MCW).

GLAMORGAN. Ynys-hir, first 3.6, up to 6 until 3.7; 10.8 (1); 4.9/15.10, again in numbers (RES).

MONTGOMERYSHIRE. Lake Vyrnwy, common in latter half of the summer (RES).

MONMOUTHSHIRE. Beaufort, 4.10, at 1,200ft (PS-B).

Our appeal for more information about *C. cardui* in 1980 produced a wide response: a great many records came from collective recorders who have passed on information from several hundred observers whose names are too numerous to mention here. We are especially indebted to Mr. R. E. Scott for collecting and submitting notes from the wardens of some 40 reserves of the Royal Society for the Protection of Birds. We have also made use of the valuable analysis of *C. cardui* records in Ireland which was provided by Mr. R. F. Haynes and Dr. P. Hillis and later published in the *Irish Naturalist's Journal*, but is not reproduced in detail here. For information about larvae we are very grateful for the accounts of findings in Cleveland by Mr. N. W. Harewood and Mr. K. Payne, which have also been published elsewhere.

These additional records include some from 20 vice-counties not mentioned in our main report, but for the most part these



confirm the impression that the spread of *C. cardui* was thin and limited in extent far inland and away from the main coastal arrival points, though spread from these along the coasts was fairly widespread. The strength and timing of the main invasions of the west coast of England in the first week of June, and of the north east coast of both England and Scotland in the last days of July, are abundantly confirmed; but the additional records also show that there were relatively weak influxes to East Anglia and further north at the same time, slightly in advance of the mass invasion of Fife and Aberdeen on June 5 and 6. These were apparently not linked by arrivals on the south English coast between south Devon and east Kent, and they may have had a separate continental origin. The extent, the timing, and indeed the existence of a third large invasion to the west of England in late August or early September, which we previously thought likely, remains uncertain. Further accounts of the finding of large numbers of larvae in the open again mention the presence of widely differing instars at the same times and places. This surely implies, where the larvae and pupae survived, the emergence of adults over a long period, and it is possible that even the large numbers of butterflies seen in various places from mid August onwards resulted from this rather than from fresh immigration. The few examples reported from the Isle of Sheppey and now from Folkestone in October may well have been grandchildren of the original June immigrants.

In Ireland the pattern was interestingly different. The whole eastern coast from Wexford to Antrim clearly shared in the swarms which visited western Britain in June: more than one third of the Irish annual total was recorded there then, but records in south western Ireland were very few. As might be expected, Ireland felt little or no effect from the eastern invasion of Britain of *C. cardui* at the end of July; the numerous records in the eastern Irish counties are attributed to successful local breeding from the June immigrants. In October, however, Waterford scored 72, Cape Clear Island, Co. Cork 527, and Galway 54, thus equalling the total for June. This must surely represent a further major immigration from the south west, which was apparently not experienced at all in Britain.

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LARVAE OF *CAMPTOGRAMMA BILINEATA* L.: YELLOW SHELL FEEDING ON CRUCIFERAE. — With reference to B. K. West's note (*Ent. Rec.*, 93: 198) on *Camptogramma bilineata* feeding on *Cardamine flexuosa*, I can add three more species of Cruciferae as larval foodplants. In the winter of 1979-80 I found a larva on *Arabis caucasica*, a common rock-garden plant, introduced from south-east Europe, and in the spring of 1980 one was found feeding on *Aubretia deltoidea*, another rock-garden plant, introduced from Greece. Both records are from my garden at Leicester, where a larva has also been found on *Origanum majorana* (Labiatae). The third record is of a larva found feeding on wild cabbage, *Brassica oleracea*, growing on the cliff-tops at Lighthouse Down, Dover, in the spring of 1981. All three larvae eventually produced moths. — DENIS F. OWEN, 6 Scraftoft Lane, Leicester.